

QUARTERLY STATUS REPORT

DATE: 10/17/03

PROJECT: Evaluation of Wildlife Crossing Structures on US Highway 93
Evarto to Polson—Phase 1: Pre-construction data collection and finalization of evaluation
plan

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ANTICIPATED

PRODUCTS:

- Memo to Technical Design Committee on monitoring design considerations (completed May 2002)
 - Animal-vehicle collision database (25% complete)
 - Field Methods and Safety Protocol Handbook (25% complete)
 - Summary of literature and existing data (25% complete)
 - Memo defining the Measures of Effectiveness (20% complete)
 - Long-term Research and Monitoring Evaluation Plan (30% complete)
 - Phase 1 Pre-construction Case Study (30% complete)
 - Pre-construction field data summary report (20% complete)
 - Pre-construction black bear movement and genetics study (40% complete)
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STATUS OF ACTIVITIES AND PRODUCTS (E.G., PROJECT MILESTONES, DELIVERABLES, PRODUCT DISSEMINATION, RELEVANT DIVISION ACTIVITIES) FOR THE PROJECT:

Previous Quarterly Report submitted July 2003. This report entails the activities from July 1, 2003 – September 30, 2003.

On-going Activities

- Literature search and compilation of relevant data.
- Discussions on research issues, direction, and potential partnerships with MDT research manager and district biologist, Confederated Salish and Kootenai Tribes (CSKT) tribal biologist, Montana State University and University of Montana (UM) Ecology/Wildlife Departments and GIS center, Salish Kootenai College (SKC), and Wildlife Conservation Society (WCS).
- Attendance of US 93 Technical Design Committee meetings to document decision-making process for wildlife crossings and fencing design issues for case study.

July 2003

- Continued monitoring of track beds. Finalized tracking data collection methods and determined a sampling schedule. Track bed data will be (and is being) collected

weekly in approximately three two-month periods in spring, summer, and fall. We will collect snow tracking data in the winter when the track beds are frozen. Specifically, we anticipate monitoring the track beds from the time the beds thaw (March?) until the end of April; June and July; and September until the beds freeze. Monitoring of the track beds so far indicates deer and bear (primary species of interest) approach the road often. Small and medium mammals more difficult to identify due to the tracking substrate (especially in dry conditions) but still able to index activity and crossing events for these general suites of species. Grass coming up from under the landscaping material is a nuisance but doesn't appear to be inhibiting the interpretation of the track events significantly.

- Installed precipitation meters in Evaro, Ravalli Curves and Ravalli Hill in order to track this abiotic co-variate as it relates to tracking data.

August 2003

- Temporarily stopped monitoring the tracking beds mid-August. The breaks in the monitoring schedule are intended to reduce labor costs. The sampling effort appears to be adequate, yielding enough data to produce a pre-construction parameter of crossing rates with a reasonable confidence interval.
- Co-PI Marcel Huijser met with George Sibley, documentary film maker, for an interview about the overall project and the monitoring effort.
- Amanda Hardy was interviewed by John Stromnes of the Missoulian about the tracking bed monitoring.
- Amanda Hardy presented "An overview of methods and approaches for evaluating the effectiveness of wildlife crossing structures: Emphasizing the science in applied science" at the 2003 International Conference on Ecology and Transportation. This presentation formed the outline for the introduction to the Field Methods Handbook as it summarized methodologies and measures of effectiveness considered as we developed the monitoring plan for US 93.
- Welcomed Pend O'reille Tribal Member Whisper Maillet to MSU as she begins course work to enter graduate school and the WTI Graduate Fellowship program in cooperation with the Wildlife Conservation Society (WCS). This cooperative effort between WTI and WCS supports a Native American in pursuit of a master's thesis on transportation and ecology issues on tribal lands. Whisper intends to conduct her thesis research on the US 93 wildlife crossings and animal-vehicle mortalities.

September 2003

- Resubmitted refined schedules and budgets for contract amendment. MDT finalized the scope and amended the contract with MSU Grants and Contracts.
- Installed and monitored soil temperature data for tracking bed (covariate) data.
- Compiled literature on wildlife population density estimation techniques (pellet counts). Will coordinate this effort with CSKT Biologist Dale Becker to avoid repetition of effort and adopt techniques that are useful to this project as well as overall CSKT wildlife program goals.
- Drafted Partnership Agreement for the joint WCS/WTI Native American Graduate Fellowship position.
- Data entry for the tracking bed field data.

Summary

Efforts, to date, have been centered on establishing the pre-construction field monitoring methods. Most aspects of the pre-construction monitoring program are in place (bear study, traffic counts, road-kill data collection, tracking bed data collection). Pellet transect methodologies to index relative deer densities will be finalized and data collection for this parameter will occur before mid-November 2003. Protocols for all field techniques have been drafted as they were established; these drafts will be revised and pulled together for the Field Methods Handbook. Databases and quality assurance/quality control systems are being established and will be documented in the Field Methods Handbook as well. With field methods established, WTI can evaluate the amount and variability of the data in order to draft appropriate Measure of Effectiveness for MDT and FHWA to review and comment. WTI continues to attend TDC meetings to collaborate on monitoring design and to document decision-making processes related to wildlife mitigation for the case study.